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EXAMINER	
DANIEL JR, WILLIE J	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/801,807	KIL, TAE-YOUNG	
	Examiner	Art Unit	
	WILLIE J. DANIEL JR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's communication filed on 09 April 2008. **Claims 25-31** are now pending in the present application and **claims 1-24** are canceled. This office action is made **Final**.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25, 28, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. **Claims 25, 28, and 30** include the limitation "…station **has been** registered…" as recited in line(s) 8 & 13-14 of claim 25. The applicant is advised to review the subject matter of the specification (see pg. 10, line(s) 3-4), which clearly states …*MS 24, is registered*…; specification (see pg. 12, line(s) 1-4), which clearly states …*stations registered in the private*…; specification (see paragraph bridging pgs. 15-16), which clearly states …is registered to be able to use…. The Examiner requests clarification as to whether the claim language "…**has been**…" implies that the station is currently registered OR is currently not registered?

b. **Claims 25, 28, and 30** include the limitation "…station **has not been** registered…" as recited in line(s) 13-14 of claim 25. The applicant is advised to review the subject matter of the specification (see pg. 10, line(s) 6), which clearly states …*MS 24, is* ***not***

registered…. Furthermore, the claim language "…**has not been**…" is a contradiction of the claim language "…**has been**…". The Examiner requests clarification on the transition from "…**has been**…" to "…**has not been**…". Does the claim language describe two separate methods that are being combined and overlapped together? Are the claims describing different methods for two different mobile stations.

Regarding **claims 25, 28, and 30**, the claims recite language that is not clear and concise in which the Examiner respectfully request the applicant to clarify the claims. Applicant is advised to clearly and concisely provide claim language that is consistent and correlates to the specification and mindful not to improperly utilized language that is clearly not supported. If the applicant considers the current language to be sufficient, the Examiner respectfully requests page(s), line(s), and/or drawing(s) of the instant application that supports the claim language and any supportive comment(s) to help clarify and resolve this issue(s).

3. Due to the 112 rejection of the current claim language, the Examiner has given a reasonable interpretation of said language and the claims are rejected as broadest and best interpreted. In addition, applicant is welcomed to point out where in the specification the Examiner can find support for this language if Applicant believes otherwise.
4. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Buttitta et al.** (hereinafter Buttitta) (**US 5,913,166**) in view of **Bartle et al.** (hereinafter Bartle) (**US 6,018,655**) and **Khan et al.** (hereinafter Khan) (**US 5,926,760**).

Regarding **claim 25**, Buttitta discloses a method of generating an alarm on an occurrence of a cell secession of a mobile station (10) located within a common cell area of a public and private radio mobile communication system (see col. 7, lines 15-18; Fig. 1), where the private base station provides private and public communication, the method comprising:

receiving power-related information transmitted from the mobile station (10) during a call and detecting information about the quality from the received information (see col. 7, lines 15-18,25-34,42-44);

comparing the quality information with a power control parameter value of the system (see col. 7, lines 15-18,42-44);

determining whether the mobile station (10) has been registered in the private wireless communication service system to facilitate the mobile station to use the private radio communication system upon a determination that a power level of the mobile station (10) is less than a predetermined reference power level (see col. 4, lines 22-31; col. 7, lines 12-23,42-44);

transmitting information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station (10) upon a determination that the mobile station (10) has been registered in the private radio mobile communication system (see col. 4, lines 22-31; col. 7, lines 12-23,42-44), where the mobile station is able to communicate with the private base station and the public base station in which the mobile station is able to roam (or hand-off) between the private and public systems (see col. 3, lines 32-43); and

handing off the corresponding mobile station (e.g., 10) call to another cell upon a determination that the mobile station (10) has not been registered in the private radio mobile communication system (see col. 7, lines 12-23,25-34,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Remote party (mobile station - not shown) is located in the cellular system (see col. 4, lines 1-10). Buttitta does not specifically disclose having the features detecting information about the frame quality; comparing the frame quality information with a power control parameter value of the system. However, the examiner maintains that the features detecting information about the frame quality; comparing the frame quality information with a power control parameter value of the system; mobile station has not been registered in the private radio mobile communication system was well known in the art, as taught by Bartle.

In the same field of endeavor, Bartle discloses the features detecting information about the frame quality (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3);

comparing the frame quality information with a power control parameter value of the system (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3). As a note, Bartle at the least further discloses the feature(s) transmitting information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station upon a determination that the mobile station is registered in the private radio mobile communication system (see col. 1, lines 54-67; col. 2, lines 40-50; col. 10, lines 51-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle to have the features detecting information about the frame quality; comparing the frame quality information with a power control parameter value of the system, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9). The combination of Buttitta and Bartle inexplicitly discloses the feature(s) mobile station has not been registered in the private radio mobile communication system. However, the examiner maintains that the feature(s) mobile station has not been registered in the private radio mobile communication system was well known in the art, as taught by Khan.

As further support in the same field of endeavor, Khan at the least discloses the feature(s) mobile station has not been registered in the private radio mobile communication system (see col. 7, lines 48-54). As a note, Khan further discloses the feature(s) mobile station has been registered in the private wireless service system (see col. 7, lines 48-54,58-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle with Khan to have the

feature(s) mobile station has not been registered in the private radio mobile communication system, in order to have a system in which a private base station supports registering of multiple mobile stations, as taught by Khan (see col. 1, lines 48-52).

Regarding **claim 26**, the combination of Buttitta and Bartle with Khan discloses every limitation claimed, as applied above (see claim 25), in addition Buttitta further discloses the method as claimed in claim 25, wherein transmitting the cell secession alarm information to the mobile station comprises transmitting a predetermined tone control message over a forward traffic channel (see col. 4, lines 43-47; col. 7, lines 15-18).

Regarding **claim 27**, Buttitta discloses the method as claimed in claim 25, the power-related information including at least one of a power measurement report message as to the received power level from the mobile station (see col. 7, lines 12-15,42-44). Buttitta does not specifically disclose having the feature an erasure indicator bit as to an error detected field. However, the examiner maintains that the feature an erasure indicator bit as to an error detected field was well known in the art, as taught by Bartle.

In the same field of endeavor, Bartle discloses the feature an erasure indicator bit as to an error detected field (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle with Khan to have the feature an erasure indicator bit as to an error detected field, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9).

Regarding **claim 28**, Buttitta discloses a method comprising: receiving in a base station of a public and private radio mobile communication system a power control parameter of a mobile station located within a common cell area of the public and private radio mobile communication system from a base station controller of the mobile communication system (see col. 7, lines 15-18; Fig. 1), where the private base station provides private and public communication;

receiving power-related information in the base station during a call, the power-related information being related to a received power level of the base station at the mobile station and being generated and transmitted from the mobile station to the base station (see col. 7, lines 15-18,25-34,42-44);

the base station detecting information as to a quality (e.g., RSSI) by determining a rate (e.g., RSSI) from the received power-related information (see col. 7, lines 15-18,42-44);

comparing the determined forward rate (e.g., RSSI) with a value corresponding to the power control parameter received from the corresponding base station controller to provide a determined power level of the mobile station (see col. 7, lines 15-18,42-44);

determining when the determined power level of the mobile station decreases below a predetermined reference power level indicating that the mobile station has seceded from a selected cell of the mobile communication system (see col. 7, lines 12-23,42-44);

determining whether the mobile station has been registered in the private radio mobile communication system to facilitate the mobile station to use the private radio communication system when the determined power level of the mobile station is less than the predetermined reference power level (see col. 4, lines 22-31; col. 7, lines 12-23,42-44);

transmitting information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station upon a determination that the mobile station has been registered in the private radio mobile communication system (see col. 4, lines 22-31; col. 7, lines 12-23,42-44), where the mobile station is able to communicate with the private base station and the public base station in which the mobile station is able to roam (or hand-off) between the private and public systems (see col. 3, lines 32-43); and

handing off the corresponding mobile station call to another cell upon a determination that the mobile station has not been registered in the private radio mobile communication system (see col. 7, lines 12-23,25-34,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Remote party (mobile station - not shown) is located in the cellular system (see col. 4, lines 1-10). Buttitta does not specifically disclose having the features detecting information as to a frame quality by determining a forward frame error rate; comparing the determined forward frame error rate with a value corresponding to the power control parameter. However, the examiner maintains that the features detecting information as to a frame quality by determining a forward frame error rate; comparing the determined forward frame error rate with a value corresponding to the power control parameter was well known in the art, as taught by Bartle.

Bartle further discloses the features detecting information as to a frame quality by determining a forward frame error rate (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3);

comparing the determined forward frame error rate with a value corresponding to the power control parameter (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3). As a note, Bartle at the least further discloses the feature(s) a transmitter adapted to transmit cell secession alarm information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station upon a determination that the mobile station is registered in the private radio mobile communication system (see col. 1, lines 54-67; col. 2, lines 40-50; col. 10, lines 51-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle to have the features detecting information as to a frame quality by determining a forward frame error rate; comparing the determined forward frame error rate with a value corresponding to the power control parameter, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9). The combination of Buttitta and Bartle inexplicitly discloses the feature(s) mobile station has not been registered in the private radio mobile communication system. However, the examiner maintains that the feature(s) mobile station has not been registered in the private radio mobile communication system was well known in the art, as taught by Khan.

As further support in the same field of endeavor, Khan at the least discloses the feature(s) mobile station has not been registered in the private radio mobile communication system (see col. 7, lines 48-54). As a note, Khan further discloses the feature(s) mobile station has been registered in the private wireless service system (see col. 7, lines 48-54,58-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle with Khan to have the feature(s) mobile station has not been registered in the private radio mobile communication system, in order to have a system in which a private base station supports registering of multiple mobile stations, as taught by Khan (see col. 1, lines 48-52).

Regarding **claim 29**, Buttitta discloses the method as claimed in claim 28, the power-related information including at least one of a power measurement report message as to the received power level from the mobile station and an erasure indicator bit as to an error detected field (see col. 7, lines 12-15,42-44). Buttitta does not specifically disclose having the feature an erasure indicator bit as to an error detected field. However, the examiner maintains that the feature an erasure indicator bit as to an error detected field was well known in the art, as taught by Bartle.

Bartle further discloses the feature an erasure indicator bit as to an error detected field (see col. 1, lines 54-67; col. 2, lines 17-23; Figs. 2-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta and Bartle with Khan to have the feature an erasure indicator bit as to an error detected field, in order to notify a digital cellular telephone user of an imminent communication disconnection, as taught by Bartle (see col. 2, lines 6-9).

Claims 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by **Buttitta et al.** (hereinafter Buttitta) (**US 5,913,166**) in view of **Khan et al.** (hereinafter Khan) (**US 5,926,760**).

Regarding **claim 30**, Buttitta discloses a method and an apparatus comprising:

a base station of the mobile communication system adapted to receive power-related information transmitted from a mobile station during a call, the mobile station being located within a common cell area of a public and private radio mobile communication system, the power-related information being related to a received power level of the base station at the mobile station and being generated and transmitted from the mobile station to the base station (see col. 7, lines 15-18,25-34,42-44; Fig. 1);

an analyzer adapted to analyze the received power-related information to determine when a power level of the mobile station decreases below a predetermined reference power level indicating that the mobile station has seceded from a selected cell of the mobile to communication system (see col. 7, lines 15-18,42-44);

the analyzer also adapted to determine whether the mobile station has been registered in the private radio mobile communication system to facilitate the mobile station to use the private radio communication system upon a determination that a power level of the mobile station is less than a predetermined reference power level (see col. 4, lines 22-31; col. 7, lines 15-18,42-44);

a transmitter adapted to transmit cell secession alarm information for generating an alarm on an occurrence of a cell secession to the corresponding mobile station upon a determination that the mobile station has been registered in the private radio mobile communication system

(see col. 4, lines 22-31; col. 7, lines 12-23,42-44), where the mobile station is able to communicate with the private base station and the public base station in which the mobile station is able to roam (or hand-off) between the private and public systems (see col. 3, lines 32-43); and

the base station handing off the corresponding mobile station call to another cell upon a determination that the mobile station has not been registered in the private radio mobile communication system (see col. 7, lines 12-23,25-34,42-44), where the private base station (20) sends the warning tone to a registered (or connected) mobile station (10). When the mobile station (10) connects with the cellular system, the mobile station (10) is not registered (or connected) with the private base station. Remote party (mobile station - not shown) is located in the cellular system (see col. 4, lines 1-10). Buttitta inexplicitly discloses the feature(s) mobile station has not been registered in the private radio mobile communication system. However, the examiner maintains that the feature(s) mobile station has not been registered in the private radio mobile communication system was well known in the art, as taught by Khan.

As further support in the same field of endeavor, Khan at the least discloses the feature(s) mobile station has not been registered in the private radio mobile communication system (see col. 7, lines 48-54). As a note, Khan further discloses the feature(s) mobile station has been registered in the private wireless service system (see col. 7, lines 48-54,58-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Buttitta with Khan to have the feature(s)

mobile station has not been registered in the private radio mobile communication system, in order to have a system in which a private base station supports registering of multiple mobile stations, as taught by Khan (see col. 1, lines 48-52).

Regarding **claim 31**, the combination of Buttitta with Khan discloses every limitation claimed, as applied above (see claim ?), in addition Buttitta further discloses the apparatus as claimed in claim 30, wherein the transmitter is adapted to transmit a predetermined tone control message over a forward traffic channel of the mobile communication system indicating that the mobile station has seceded from the selected cell of the mobile communication system (see col. 4, lines 43-47; col. 7, lines 15-18).

Response to Arguments

6. Applicant's arguments with respect to claims 25-31 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amended language, new limitations, and/or new claims.

In response to applicant's arguments, the Examiner respectfully disagrees as the applied reference(s) provide more than adequate support and to further clarify (see the above claims for relevant citations and comments in this section).

7. The Examiner requests applicant to provide support (e.g., page(s), line(s), and drawing(s) as well as comments) for the amended claim language and any further amended claim language.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIE J. DANIEL JR whose telephone number is (571)272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD,Jr/

WJD,Jr
27 June 2008

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617